Appln No. 10/680,818 Amdt date October 9, 2007

## Amendments to the Specification:

On page 3, lines 2-19, please amend the paragraph to read as follows:

"The present invention provides methods for labeling structures, including beta-amyloid plaques and neurofibrillary tangles, *in vivo* and *in vitro*, and comprises contacting a compound of formula (I):

$$R_2 - N$$

$$R_3$$

$$(I)$$

with mammalian tissue. In formula (I),  $R_1$  is selected from the group consisting of -C(O)-alkyl, -C(O)-alkylenyl- $R_4$ , -C(O)O-alkylenyl  $R_4$ , -C=C(CN)<sub>2</sub>-alkyl, -C=C(CN)<sub>2</sub>-alkylenyl- $R_4$ , -C=C(CN)<sub>2</sub>-alkylenyl- $R_4$ ,

$$R_6$$
 $R_6$ 
 $R_6$ 
 $R_8$ 
 $R_7$ 
 $R_8$ 
 $R_8$ 
 $R_7$ 
 $R_8$ 
 $R_8$ 

 $R_4$  is a radical selected from the group consisting of alkyl, substituted alkyl, aryl and substituted aryl;  $R_5$  is a radical selected from the group consisting of -NH2, -OH, -SH, -NH-alkyl, -NHR<sub>4</sub>, -NH-alkylenyl-R<sub>4</sub>, -O-alkyl, -O-alkylenyl-R<sub>4</sub>, -S-alkyl, and -S-alkylenyl-R<sub>4</sub>;  $R_6$  is a radical selected from the group consisting of -CN, -COOH, -C(O)O-alkyl, -C(O)O-alkylenyl-R<sub>4</sub>, -C(O)-alkyl, -C(O)-alkylenyl-R<sub>4</sub>, -C(O)-halogen, -C(O)NH-alkyl, -C(O)NH-alkylenyl-R<sub>4</sub>;  $R_7$  is a radical selected from the group consisting of O, NH, and S; and  $R_8$  is N[[ $\frac{1}{2}$ O or S]].

On page 4, line 18 to page 5, line 12, please amend the paragraph to read as follows:

"In still another embodiment, the invention is directed to a composition comprising a compound of formula (I):

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$$\begin{array}{c|c} R_1 & & \\ R_2 - N & & \\ R_3 & & \end{array}$$

where  $R_1$  is selected from the group consisting of -C(O)-alkyl, -C(O)-alkylenyl- $R_4$ , -C(O)O-alkylenyl- $R_4$ , -C =C(CN)<sub>2</sub>-alkyl, -C=C(CN)<sub>2</sub>-alkylenyl- $R_4$ ,

$$R_6$$
  $R_6$   $R_6$   $R_6$   $R_7$   $R_7$   $R_8$   $R_8$ 

R<sub>4</sub> is a radical selected from the group consisting of alkyl, substituted alkyl, aryl and substituted aryl; R<sub>5</sub> is a radical selected from the group consisting of -NH<sub>2</sub>, -OH, -SH, -NH-alkyl, -NHR<sub>4</sub>, NH-alkylenyl-R<sub>4</sub>, -O-alkyl, -O-alkylenyl-R<sub>4</sub>, -S-alkyl, and -S-alkylenyl-R<sub>4</sub>; R<sub>6</sub> is a radical selected from the group consisting of -CN, -COOH, -C(O)O-alkyl, -C(O)O-alkylenyl-R<sub>4</sub>, -C(O)-alkyl, -C(O)-alkylenyl-R<sub>4</sub>, -C(O)-halogen, -C(O)NH<sub>2</sub>, -C(O)NH-alkyl, -C(O)NH-alkylenyl-R<sub>4</sub>; R<sub>7</sub> is a radical selected from the group consisting of O, NH, and S; R<sub>8</sub> is N[[, O or S]]; R<sub>2</sub> is selected from the group consisting of alkyl and alkylenyl-R<sub>5</sub>; and R<sub>3</sub> is alkylenyl-R<sub>5</sub>[,]; and R<sub>5</sub>-is selected from the group consisting of OH, OTs, halogen, spiperone, spiperone ketal, and spiperone 3-yl, or R<sub>2</sub> and R<sub>3</sub> together form a heterocyclic ring, optionally substituted with at least one radical selected from the group consisting of alkyl, alkoxy, OH, OTs, halogen, alkylenyl-R<sub>5</sub> carbonyl, spiperone, spiperone ketal and spiperone-3-yl. One or more of the hydrogen, halogen or carbon atoms can optionally be replaced with a radiolabel.

On page 7, line 19 through page 8, line 10, please amend the paragraph to read as follows:

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"The present invention is directed to methods for labeling structures such as  $\beta$ -amyloid plaques and neurofibrillary tangles *in vivo* and *in vitro*. The methods all involve contacting a compound of formula (I):

$$R_2 - N$$

$$R_3$$

$$(I)$$

with mammalian tissue. In formula (I),  $R_1$  is selected from the group consisting of -C(O)-alkyl, -C(O)-alkylenyl- $R_4$  -C=C(CN)<sub>2</sub>-alkyl, -C=C(CN)<sub>2</sub>-alkylenyl- $R_4$ ,

$$R_6$$
  $R_6$   $R_6$   $R_6$   $R_7$   $R_7$   $R_7$   $R_7$ 

 $R_4$  is a radical selected from the group consisting of alkyl, substituted alkyl, aryl and substituted aryl.  $R_5$  is a radical selected from the group consisting of -NH<sub>2</sub>, -OH, -SH, -NH-alkyl, -NHR<sub>4</sub>, -NH-alkylenyl-R<sub>4</sub>, -O-alkylenyl-R<sub>4</sub>, -S-alkyl, and -S-alkylenyl-R<sub>4</sub>.  $R_6$  is a radical selected from the group consisting of -CN, -COOH, -C(O)O-alkyl, -C(O)O-alkylenyl-R<sub>4</sub>, -C(O)-alkyl, -C(O)-alkylenyl-R<sub>4</sub>, -C(O)-halogen, -C(O)NH-alkyl, -C(O)NH-alkylenyl-R<sub>4</sub>.  $R_7$  is a radical selected from the group consisting of O, NH, and S[[.]]; and  $R_8$  is N[[, O-or S]].

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